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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,974	11/24/2003	Mario Au	5646-124	6997

20792 7590 12/12/2006

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EXAMINER

PORTKA, GARY J

ART UNIT	PAPER NUMBER
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2188

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/721,974

Applicant(s)

AU ET AL.

Examiner

Gary J. Portka

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-14 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 1-7 and 9-13 is/are allowed.
6) ☒ Claim(s) 14 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claim 7 was amended, claim 8 was canceled, and claim 14 was added by Applicant. Claims 1-7 and 9-14 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 14 recites a hybrid mode "having both standard mode and FWFT mode characteristics". Since the claim recites the hybrid mode has their characteristics without actually stating that it supports that mode, it is unclear what this limitation is intended to cover. For example, both standard and FWFT modes might be considered to include the characteristic of being applicable to FIFO memories, which would make the limitation apparently redundant. Characteristics might also include access times, type of programs useful for, etc. Since the scope of the limitation cannot be determined, it is vague and indefinite.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 14 is rejected under 35 U.S.C. 102(a) as being anticipated by IDT, "3.3V CMOS Sync FIFO".

6. As to claim 14, IDT discloses on page 23 an integrated circuit device comprising FIFO memory device (any of the FIFO devices shown) configured to support at least one hybrid operating mode that enables the FIFO to be cascaded with another in a collective standard mode of operation, the hybrid mode having both standard and FWFT mode characteristics to the extent claimed. As described in the current specification, characteristics of FWFT mode include an input that indicates whether the FIFO has any free space to support a write, and an output that indicates whether there is valid data at the data output (current disclosure, para. 0011). The FF/IR and EF/OR lines of IDT meet these limitations, respectively. The same lines also meet the standard mode characteristics provided by full and empty flags (current disclosure Fig. 1B).

7. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Steinmetz et al., US 6,055,588.

8. As to claim 14, Steinmetz discloses in Fig. 1b, and at col. 3 line 41 to col. 4 line 7, an integrated circuit device comprising FIFO memory device (any of the FIFO devices 12, 14, or 16) configured to support at least one hybrid operating mode that enables the FIFO to be cascaded with another in a collective standard mode of operation, the hybrid mode having both standard and FWFT mode characteristics to the extent claimed. As described in the current specification, characteristics of FWFT mode include an input that indicates whether the FIFO has any free space to support a write, and an output

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that indicates whether there is valid data at the data output (current disclosure, para. 0011). The nFULL and nEMPTY lines of Steinmetz meet these limitations, respectively. The same lines also meet the standard mode characteristics provided by full and empty flags (current Fig. 1B). It is noted that a de-asserted "not empty" or a "not full" flag may be considered equal to an asserted "empty" or "full" flag, respectively.

Response to Arguments

9. Applicant's arguments filed June 26, 2006 have been fully considered but they are not persuasive.

10. Applicant argues that Steinmetz only discloses that which was already admitted as prior art, such as shown in the current disclosure, Fig. 1A. However, as explained hereinabove, examiner equates "not empty" and "not full" flags with empty and full flags (that are de-asserted), and thus according to applicants own specification this anticipates the standard mode as shown in the current disclosure Fig. 1B.

11. Applicant argues that a cascaded arrangement in IDT only supports FWFT mode as shown in Fig. 31 therein, and that Fig. 30 is not a cascaded form. However, this does not point out the supposed error in examiners previous argument that Fig. 30 may be considered cascaded specifically because it shows a series of components (the three FIFO chips) with outputs of each (e.g., W XO or R XO) connected to the inputs of the next (W XI or R XI), this argument supported by previously supplied and cited reference Park, US 5,640,515 (those of ordinary skill in the art refer to a configuration such as in IDT as cascaded, see Park Abstract and Fig. 1).

Allowable Subject Matter

12. Claims 1-7 and 9-13 are allowed.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Gary J Portka
Primary Examiner
Art Unit 2188

December 8, 2006

GARY PORTKA
PRIMARY EXAMINER

